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EXAMINER

KOCH, GEORGE R

ART UNIT PAPER NUMBER

1734

DATE MAILED: 12/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/673,344

Applicant(s)

VERGONA, JOSEPH B.

Examiner

George R. Koch III

Art Unit

1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-68 is/are pending in the application.
4a) Of the above claim(s) 19-36 and 53-68 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-18 and 37-52 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/30/03.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 18 and 52 rejected under 35 U.S.C. 102(a) as being anticipated by the admitted prior art (pages 1-6 of the specification).

The method of claims 1 and 37 create baby diapers, baby training pants, or adult incontinence articles. The method limitations are not accorded any weight in a product by process claim except so far as they modify the structure of the product. The actual product limitation of claims 18 and 52 are merely limited to an article selected from the group consisting of a baby diaper, a baby training pant, and an adult incontinence article with graphics incorporated (see first paragraph of the background of the invention in the specification, which specifies that these products with graphics incorporated are known). The admitted prior art discloses these limitations, especially in page 4, which discusses the '543 patent and discloses that it includes graphics.

3. Claims 18 and 52 rejected under 35 U.S.C. 102(b) as being anticipated by the Stuebe (US 5,659,538).

The method of claims 1 and 37 create baby diapers, baby training pants, or adult incontinence articles. The method limitations are not accorded any weight in a product by process claim except so far as they modify the structure of the product. The actual product limitation of claims 18 and 52 are merely limited to an article selected from the group consisting of a baby diaper, a baby training pant, and an adult incontinence article with graphics incorporated (see first paragraph of the background of the invention in the specification, which specifies that these products with graphics incorporated are known). Stuebe discloses an article and further states that a printing operation can be involved (see specification, column 4).

4. Claims 18 and 52 rejected under 35 U.S.C. 102(b) as being anticipated by the Uitenbroek (US 5,897,541)

The method of claims 1 and 37 create baby diapers, baby training pants, or adult incontinence articles. The method limitations are not accorded any weight in a product by process claim except so far as they modify the structure of the product. The actual product limitation of claims 18 and 52 are merely limited to an article selected from the group consisting of a baby diaper, a baby training pant, and an adult incontinence article with graphics incorporated (see first paragraph of the background of the invention in the specification, which specifies that these products with graphics incorporated are known). Uitenbroek discloses an article and further states that a printing operation can be involved (see Figure 3).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1, 2, 4-10, 13, 14, 37, 38, 40-46 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stuebe (US Patent 5,659,538) and Schleinz (US Patent 5,597,642).

As to claim 1 and 37, Stuebe discloses a generic method for correlating multiple processes in the manufacture of absorbent articles such as diapers (see title), the method comprising providing a moving substrate (item 12) to an cutter (item 14, 16, and 18), sensing a line speed target signal (item 28) from a line speed target machinery component (item 10, 10a, 10b), rotating an processing cylinder (items 14, 16, and 18) at a predetermined speed, based on the line speed reference signal, thereby to perform a process on the moving substrate at a predetermined distance frequency, sensing a phase difference signal (item 32) from a phase target machinery component (see

column 4, line 14 to column 4, line 32) and setting an actual operating phase angle, based on the phase difference signal, to approximate a predetermined phase angle to thereby position the series of graphics on the moving substrate at a series of desired graphics locations (see column 4, line 33 to column 4, line 65).

Stuebe discloses the preferred embodiment wherein the position of the fastening tabs are detected as the line speed reference signal, and the phase angle of the rotary cutter is set. However, Stuebe discloses that the concept can be generalized to any two features of the diaper web, including both the printing and the cutting (see column 3, lines 35-40). Therefore, Stuebe discloses that the line speed target machinery and phase target machinery as claimed.

However, Stuebe does not disclose any details related to the type of mechanism used to perform the printing operation.

Schleinz discloses that it is known to use rotary cylinder (i.e., graphic applicator) based printing mechanisms in diaper and undergarment manufacturing (see items 42, 44, and 46, and column 3, line 46 to column 4, line 6, and the specification in general). Schleinz discloses that this method of printing results in improved quality of print patterns and reduced cost of manufacture (see column 3, lines 36-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such rotary printing equipment in order to achieve improved quality of print patterns and reduced cost of manufacture.

As to claims 2 and 38, item 12 is a diaper, which includes a backsheet web (by definition, the layer which is on the rear side of the machinery).

As to claim 4 and 40, Stuebe disclose monitoring the calendaring, i.e., the driving of the webs.

As to claim 5, 6, 41, and 42, as stated in claim 1 above, Stuebe discloses that the line sensing and phase adjusting concept can be generalized to any two features, relative to each other, of the diaper web, including both the printing and the cutting points. Thus, Stuebe discloses that the line speed target machinery can be the cutter, and the phase target machinery component can be the cutter.

As to claim 7 and 43, Stuebe discloses one line speed control mechanism and a phase control mechanism, and thus, that the components are different machinery components.

As to claim 8 and 44, Stuebe also discloses that the line speed mechanism and phase control mechanism can be the same mechanism (see relations between items 44, 32 and 14).

As to claim 9 and 45, Stuebe discloses that encoders such as optical sensors can be used for the line speed target machinery (see column 3, lines 52-67).

As to claim 10 and 46, Stuebe does disclose monitoring of the phase, but does not disclose that the sensor can be an inductance sensor. Official notice is taken that the use of inductance sensors for rotary operations is well known and conventional. Such sensors provide feedback as to the phase of a rotary element, improving alignment and positioning. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize such an inductance sensor in order to ensure proper alignment and positioning.

As to claim 13, Schleinz as incorporated is a flexographic print system.

As to claim 14, Schleinz as incorporated discloses providing the moving substrate to a second print cylinder (Schleinz discloses print cylinders 42, 44, and 46) and rotating the second print cylinder at the predetermined speed, thereby printing the second series of graphics (in this case, additional colors).

As to claim 49, official notice is taken that the use of cut and space devices (i.e., graphic or label applicators) is well known and conventional. Such a mechanism allows for the graphics to be manufactured with another machines/location and then later applied to the absorbent article, reducing methodology and machinery complexity. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such structures in order to reduce methodology and machinery complexity.

8. Claims 2-3 and 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stuebe and Schleinz as applied to claims 1, and 37 above, and further in view of the admitted prior art (especially page 1).

Claims 2 and 38 are rejected above, under the rationale that the single present layer of Stuebe is considered a backsheet web. However, Claims 3 and 39 require additional layers in conjunction with a backsheet web, which forces a definition of the backsheet web in view of those layers.

Both Stuebe and Schleinz are silent as to the separate components of the web. Stuebe does disclose cutting the assembly at a series of cuts with a cutter (item 16), and that the phase target machinery component can comprise the cutter.

However, the admitted prior art discloses that the substrate comprises a backsheet web, and further discloses providing a supply of absorbent pads, a topsheet web, joining the topsheet web to the backsheet web with the absorbent pads located therebetween to form an absorbent core assembly. One in the art would immediately appreciate that this method provides for a form-fitting garment or diaper with relatively waterproof outers and absorbent inners, ensuring wetness protection. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such layers in order to ensure wetness protection in the final product.

9. Claims 11, 12, 15, 47 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stuebe and Schleinz as applied to claims 1, 14, and 37 above, and further in view of Wilhelm (US 6,075,178)

While Stuebe and Schleinz do disclose printing, which is a generic graphic, they do not specifically disclose wetness indicators and decorative graphics.

Wilhelm discloses that it is known to utilize wetness indicators and decorative graphics in diaper manufacture (see, for example, the abstract, and column 2). Furthermore, one would immediately appreciate that the wetness indicator of Wilhelm would meet the feature requirement of Stuebe. Wilhelm discloses that wetness indicators provide improved comfort to the wearer (see column 2, lines 46-47).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have incorporated wetness indicators in order to provide improved comfort to the wearer.

10. Claims 16-17 and 50-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stuebe and Schleinz as applied to claims 1 and 37 above, and further in view of Harrison (US 5,003,876).

Stuebe and Schleinz as applied to claim 1 is silent as to shutdown modes and startup modes.

Harrison discloses that it is known to disengage a printer (i.e., graphic applicator), during the detection of a shutdown (operation of the ink on/off switch) and rotate at an idle speed, and then startup from an idle speed. Harrison discloses that the idle rotation ensures against the ink drying out (see column 11, lines 11-29) and then starts up on the on operation (see column 11, lines 52 to column 12, line 12).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the startup/idle/shutdown methods of claims 16, 17, 50 and 51 in order to prevent ink dry-out and better maintenance of the graphic material.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George R. Koch III whose telephone number is (571) 272-1230 (TDD only). If the applicant cannot make a direct TDD-to-TDD call, the

Art Unit: 1734

applicant can communicate by calling the Federal Relay Service at 1-866-377-8642 and giving the operator the above TDD number. The examiner can normally be reached on M-Th 10-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Fiorilla can be reached on (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



George R. Koch III
Patent Examiner
Art Unit 1734

GRK
12/4/2004